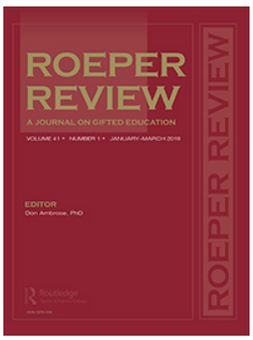

Roeper Review

ISSN: 0278-3193 (Print) 1940-865X (Online) Journal homepage: https://www.tandfonline.com/loi/uror20

Gifted Metaphors: Exploring the Metaphors of Teachers in Gifted Education and Their Impact on Teaching the Gifted

Brian P. Godor

To cite this article: Brian P. Godor (2019) Gifted Metaphors: Exploring the Metaphors of Teachers in Gifted Education and Their Impact on Teaching the Gifted, Roeper Review, 41:1, 51-60, DOI: 10.1080/02783193.2018.1553219

To link to this article: https://doi.org/10.1080/02783193.2018.1553219

Roeper Review, 41:51–60, 2019
ISSN: 0278-3193 print / 1940-865X online
DOI: https://doi.org/10.1080/02783193.2018.1553219

TACIT CONCEPTUAL FRAMEWORKS SHAPING GIFTED EDUCATION

Gifted Metaphors: Exploring the Metaphors of Teachers in Gifted Education and Their Impact on Teaching the Gifted

Brian P. Godor

Metaphors are devices that people employ for both poetic purposes and rhetorical elaboration and belong to the realm of extraordinary language. Metaphors are used to connect abstract ideas and information to more concrete experiences, thus making these experiences more familiar and easier to understand. Moreover, metaphors are more than symbolic intellectual processes; they influence the conceptual understanding of our experiences and help define our everyday realities. For education, there is an important and relevant practical connection between the metaphors that teachers employ and their beliefs about teaching and classroom practices. This stems from the notion that metaphors guide one's mental framework. In order to gain a deeper understanding of the metaphors influencing teachers in gifted education, this study specifically asked teachers to describe both their metaphors concerning gifted students as well as those influencing their teaching. In this study, nine different themes were identified. This research demonstrates a clear connection between reported metaphors and how gifted students receive their education from teachers. Participants' answers demonstrate a strong connection between their metaphors and their classroom practices. However, strict adherence to one's root metaphor increases the chance for dogmatism in the classroom and can lead to potentially incoherent classroom differentiation and a potential disconnect between classroom practices and the actual pedagogical needs of the gifted learner.

Keywords: classroom practices, differentiation, gifted education, metaphors, pedagogical needs, teacher practices

μεταφορὰ δέ ἐστιν ὀνόματος ἀλλοτρίου ἐπιφορὰ ἢ ἀπὸ τοῦ γένους ἐπὶ εἶδος ἢ ἀπὸ τοῦ εἴδους ἐπὶ τὸ γένος ἢ ἀπὸ τοῦ εἴδους ἐπὶ εἶδος ἢ κατὰ τὸ ἀνάλογον.

Metaphor is the application of a strange term either transferred from the genus and applied to the species or from the species and applied to the genus, or from one species to another or else by analogy—Aristotle, trans. 1982:1447b

What Is a Metaphor?

Lakoff and Johnson (2003), employing a cognitive linguistic approach, have *revolutionized* the study of metaphors (Musolff & Zinken, 2009). According to Lakoff and Johnson (2003), metaphors are devices that people employ for both poetic purposes and rhetorical elaboration and belong to the realm of extraordinary language. Metaphors are used to connect abstract ideas and information to more concrete experiences, thus making these experiences more familiar and easier to understand (Meier, Scholer, & Fincher-Kiefer,

Accepted 18 June 2018.

Address correspondence to Brian P. Godor, Erasmus School of Pedagogical and Educational Sciences, Erasmus Universiteit Rotterdam, Mandeville T13-39, Burg. Oudlaan 50, Postbus 1738-3000 DR, Rotterdam, The Netherlands. E-mail: godor@essb.eur.nl

2014). "Individuals use more concrete and familiar experiences (e.g., physical warmth) to later conceptualize and think about more abstract concepts and experiences (e.g., psychological warmth)" (Meier et al., 2014, p. 47). Additionally, Shaw and Mahlios (2008) assert that metaphors are cognitive devices for ordering and interpreting information, as well as a manner to interpret life and one's own experiences. However, beyond the poetics and rhetoric, "metaphors are reflections of underlying conventional mappings between distinct conceptual domains" (Musolff & Zinken, 2009, p. 25) and are a method of bringing "a richness of vocabulary to describing the experience" (Munby & Russell, 1990, p. 117). Equally, Koca (2012) states that metaphors are a symbolic process that reflects how people think.

Moreover, metaphors are more than symbolic intellectual processes, they influence the conceptual understanding of our experiences and thus "play a central role in defining our everyday realities" (Lakoff & Johnson, 2003, p. 3). Similarly, Gibbs (2014) contends that using metaphors can potentially influence our perspective on certain matters. For example, politicians can employ convincing metaphors to create a certain version of reality that can be used to persuade their constituents. Equally, metaphors employed within an academic discipline can direct the thinking and perception of those educational practitioners (Musolff & Zinken, 2009).

Root Metaphorical Worldviews

In line with the notion of teachers' mental paradigms and their effects upon teaching decisions, Ambrose (1998) researched the philosophical–metaphorical roots of the conceptual foundations of gifted education in order to clarify the philosophical underpinnings of gifted education. These worldviews root and thus shape one's epistemological, methodological, and ideological assumptions (Ambrose & Sternberg, 2012). There are, however, advantages for professionals who adhere to a single worldview. Ambrose (1998) asserts that proficiency can be attained in professional practices within that one worldview. However, "loyalty comes at a price. An educator who adheres to a single philosophical perspective can become insular, missing the richness of other perspectives" (Ambrose, 1998, p. 452). Moreover, Ambrose and Sternberg (2012) argue that worldviews are neutral and only pose problems when individuals adhere strictly to only one worldview. This leads to "thought confinement" (p. 12).

If teachers remain holding their dominant worldview of gifted education and do not attempt to engage in diverse worldviews, Ambrose and Sternberg (2012) assert that dogmatism can arise. This dogmatism strictly stems from the biases contained in a worldview and constrains the scope of potential professional actions. Actions are thus chosen from a narrow implicit viewpoint. In other words, teachers' potential pedagogical choices will be less diverse and strictly in line with their singular worldviews. For example, this can lead to a teaching emphasis that focuses on cause and effect, and inquiry and can lead to forming issues in black-and-white terms, thus missing nuance (Ambrose, 2000). In order to combat dogmatism and thought confinement, Ambrose (1998) asserts that in order to strengthen the understanding of a complex body of knowledge, such as teaching, a strong combination of diverse viewpoints of knowledge needs to be simultaneously active within that discipline.

Metaphors and Classroom Practices

For education, there is an important and relevant practical connection between the metaphors that teachers employ and their beliefs about teaching and classroom practices. This stems from the notion that metaphors guide one's mental framework. Tobin (1990) has demonstrated that metaphors are indeed used by teachers to interpret and frame their professional roles and are consistent with their classroom practices. Additionally, Shaw and Mahlios (2008) have emphasized that teachers' beliefs are highly resilient and represent ideas that are held to be true. Moreover, Shaw and Mahlios (2008) assert that by exploring metaphors, one can gain insight into the *common ground* that a profession is based upon. This notion is akin to one's worldview in terms of its position within a body of knowledge (Ambrose, 1998; Ambrose & Sternberg, 2012). Though metaphor research in education has primarily focused on teachers' conceptions of teaching (Olthouse, 2014), other topics have also been explored, such as teachers' views of learning, technology in the classroom, and professional identity (Eren & Tekinarslan, 2013). However, there is limited research specifically on teachers' metaphors about students.

One example of an analysis of teachers' metaphors concerning students focused on the discourse surrounding mathematics (Parks, 2010). In this study, Parks (2010) asserted that exploring the metaphors employed by educators, rather than their beliefs, offered a deeper understanding into the dominant paradigm in that field. Exploring teacher beliefs places too much emphasis on the individual teacher, generally outside a specific context rather than teachers' actions within a social setting ("social soup"; Parks, 2010, p. 82). Taking the social setting into account allows for a deeper understanding into the mental paradigm or framework that forms the foundation of commonly held conceptions that are believed to be true in that profession.

More specifically, teachers' beliefs about giftedness not only form the conceptual framework but also inform their classroom practices. Berman, Schultz, and Weber (2012) have demonstrated that preservice education students' willingness to employ specific curricular adjustments for gifted students was guided more by their personal beliefs about giftedness than any specific training that they followed. Equally, practicing teachers' utilization of certain

classroom practices such as grouping, forms of assessment, and acceleration were revealed to be guided by their beliefs and expectations about students' abilities (Missett, Brunner, Callahan, Moon, & Azano, 2014).

Classroom Practices and Engagement

Effective classroom practices need to include elements of curricular differentiation. In order to achieve this, teachers should focus on differences in terms of individual students' levels of readiness, interests, and learning preferences (Tomlinson, 1999). Employing students' interests can increase student engagement (Reis & Renzulli, 2009), academic performance (Astin, 1984; Tinto, 1988), and the chance for students to engage in that material or educational activity (Assor, Kaplan, & Roth, 2002).

Despite these benefits, teachers still struggle with differentiating their curriculum (De Neve, Devos, & Tuytens, 2015; Smit & Humpert, 2012; Tomlinson et al., 2003). Hertberg-Davis (2009) reports a high level of misunderstanding by teachers concerning how to actually differentiate, and Nichols and Zhang (2011) report teachers' misapprehensions concerning the factors that create a supportive learning environment. Moreover, Brighton, Hertberg, Callahan, Tomlinson, and Moon (2005) describe teachers' preferences to offer a differentiated curriculum to struggling students as opposed to gifted students.

Metaphors Informing Classroom Differentiation

The combination of the importance of classroom differentiation in terms of student achievement and engagement with an exploration of teachers' metaphors concerning gifted students can offer a deep insight into teachers' classroom practices for gifted students. This is based upon the notion that metaphors "play a central role in defining our everyday realities" (Lakoff & Johnson, 2003, p. 3) and at the same time inform teachers' dominant paradigms in the classroom (Parks, 2010). Teachers' paradigms and personal beliefs have also been shown to have a greater influence on preservice teachers' willingness to offer curricular adjustments than elements followed in their curriculum (Berman et al., 2012). Additionally, the manner in which teachers interpret and frame their professional role is consistent with their classroom practices and stems from their metaphors concerning teaching.

Research Questions

In order to gain a deeper understanding into teachers' beliefs and their interconnection to classroom practices, this research study aims to explore the metaphors employed by current teachers concerning giftedness. The core research questions that guided this study are the following:

1. What are the metaphors that teachers employ about gifted students?
2. How do these metaphors inform their classroom practice?

METHOD

Teachers were asked to fill in a short online questionnaire with three questions:

1. Using a metaphor, please complete the statement "Gifted students are. …"
2. Please explain your answer.
3. How does this metaphor influence your teaching of gifted students?

This was a convenience sample of active American schoolteachers who were subscribed to a gifted teacher's listserv (n = 147). All respondents indicated having earned a bachelor's degree in education and 80% a master's degree. Respondents indicated working in an elementary school (43.5%), middle school (19.0%), high school (13.6%), and other (23.8%). Eighty-five percent of respondents indicated following workshops about teaching gifted students and 76.2% indicated taking university-level courses about teaching gifted students.

Data Analysis

An inductive approach was employed when analyzing responses. Two researchers independently created a preliminary coding scheme to identify and thematically cluster the reported metaphors (Q1). The preliminary coding scheme clustered answers that appeared to be similar or contain the concept (e.g., "an ant," "a hungry wolf," and "a hummingbird"—Theme 2). Subsequent analysis of the preliminarily identified cluster themes compared the reported answers (Q2) to the themes to verify that the metaphors contained in that cluster were described in a similar manner. Each researcher performed this independently and a consensus was reached that included nine gifted metaphorical themes in this study.

After the finalization of the cluster themes, Q3 (participants' reported influence of these metaphors on their teaching) were analyzed using *keywords in context* (Ryan & Bernard, 2003) to add a deeper perspective to the previously identified gifted metaphorical themes in relation to their influence on teaching. In the following Results section, each of the nine metaphorical themes are described and then the reported effects on teaching practices are presented.

TABLE 1
Descriptive Statistics per Theme

Themes	*n*	*%*
Multilayered	29	19.70
Cultivation	29	19.70
Performance	24	16.30
Mystery	21	14.30
Existing potential	17	11.60
Unpredictability	9	6.10
Precarious	7	4.80
Overcapacity	7	4.80
Resource	4	2.70

RESULTS

Thematic clustering revealed nine themes: mystery, performance, precarious, unpredictability, multilayered, existing potential, cultivation, overcapacity, and resource (see Table 1). Each of these themes contains one motif but is constructed of several various specific metaphors. For each theme, the main metaphors are presented, along with their reported effects on teaching. The quotations included in the following analyses come from the anonymous subjects in the study; consequently, author citations are not included.

Theme: Multilayered (*N* = 29)

"You can't see the bottom of a deep lake. There can be many and varied things below the surface. Many people only see the lake."

Description of the Metaphor

Teachers in this theme perceive various strata in gifted children. These strata can be in terms of "depth," "complexity," "intellectual variation," "behavior," "things below the surface," and "personal interests." Metaphors used in this theme were "a kaleidoscope," "a taco," "an onion," "jigsaw puzzle," "a deep blue lake," "a head of lettuce," and "a jawbreaker." Teachers in this theme are highly cognizant of the complexities of giftedness: "We need to understand the different parts that make up the whole" and gifted students have a "multi-hued intellectual variation." Additionally, "a gifted student is like music … full of depth, complexity, movement, and emotion."

Effect on Teaching

The teacher is acting like a tour guide in a complex underground cave system; encouraging students to go beyond the first floor gift shop to inquire and discover themselves:

"They do need us to help them learn and find all their different layers, to expand beyond, and to reach their full potential."

"Developing an understanding of what is below the surface and encouraging them to go beyond and 'deeper' in their learning is part of my job."

Additionally,

> When a student is as complex and layered as these students are it would be very easy to go at their surface value and stop there. I would be doing them a disservice if I didn't work with them to find their complexities.

However, the role of the tour guide can be a challenge. Teachers report that their multilayered gifted students need teachers to be in "top form," and this requires teachers to choose "appropriate interventions to take them to the next level." Teachers also report "constantly being challenged to meet the needs of my students," and when attempting to meet their students' needs, teachers need to be "able to offer many options, which are not typically traditional … make this job very difficult at times."

Theme: Cultivation (*N* = 29)

"Gardening takes patience and tender loving care. Gifted students also need a patient teacher who provides much care in order to thrive."

Description of the Metaphor

This theme can be characterized by metaphors that are based on objects that, when consciously cultivated or fall into the hands of a master craftsman, will result in beautiful manifestations. Examples of these beautiful manifestations are "a budding plant," "a diamond," "an uncut piece of fine stone," "the fabric and the fabricator," "pearl hidden in an oyster shell," "a grape who can turn into sweet wine with the right amount of effort or can dry up like a raisin if left unattended to." There is a clear role for the cultivator in this theme. Whether in the form of a botanist or a lapidarist, the gifted student needs to be grown and allowed to develop. What is noteworthy in the respondents' answers is the lack of specificity as to exactly what this cultivation yields.

Effect on Teaching

Teaching in this theme can be characterized as conscious gardening, which has as its aim the cultivation of gifted students. Teaching here is about growth. But unlike the theme "mystery" where there is an emphasis on creating space for students to grow and discover their gifts, in the theme "cultivation," teachers are aware of the gift and it only needs to be tilled and attended to. Descriptions of teaching from teachers in this theme were: "tease students … to expand their curiosity," "inflate" my students, and "water their weaknesses." However, what remains unclear is exactly what is being grown. This is not explicitly stated in the participants' answers. This could be problematic in terms of the alignment of

teachers' beliefs about giftedness and the actual giftedness of that particular student. Using the lapidarist as metaphor to illustrate this point, every stone becomes a diamond with a shape predetermined by the craftsman. However, the predetermined nature of the potential yield of differentiated instruction for gifted students does not, in essence, take into consideration the individual student. It places the gardener in charge of both the growth and the direction. Only with wire and cutting can a seedling become a bonsai.

Theme: Performance (*N* = 24)

"Hungry because they are driven to learn and expand. Wolf because they have perseverance, they try, even when they fail, they continue and enjoy every endeavor."

Description of the Metaphor

This theme can be characterized as focusing on these teachers' perceptions as to how their gifted students learn and perform. Accelerated performance, based on teachers recognizing gifted students' need for tempo, seems to be more of the focus than development of the child as a whole. This performance is not defined as formal academic learning in terms of assessments and learning objectives but rather focuses on the act of learning. Many animal metaphors were reported, such as "an ant," "because they are hardworking," "a hungry wolf, because they have perseverance," and "a hummingbird; they move at a very fast pace and always need to be fed." Additionally, an amazement is present in the metaphor used by teachers as demonstrated by the use of "a volcano; they are awesome to watch" and "a tornado" due to the various directions it can take. Once again, all of these metaphors have a focus on the "act" of learning.

Effect on Teaching

Classroom practices for this theme seem to focus on the fact that gifted students will be moving fast and furious and therefore teachers need to find ways to channel this movement. Metaphors employed to describe their classroom practices were "looking for an avenue," "go all-in," and "rails wide open." Teachers in this theme feel responsible for creating learning opportunities that allow for maximum performance, not in academic terms but in allowing gifted students' innate characteristics to best express themselves.

Theme: Mystery (*N* = 21)

"Nesting dolls have many layers. Gifted children have many layers of complexity. It may take many layers to get to the 'core' but each layer is important."

Description of the Metaphor

This theme can be characterized as a combination of wonderment with teacher intrigue. In the reported explanations of the metaphors, there are strong senses of trying to figure out, find a balance, understand in terms of learning and motivation, peeling away layers, and attempting to reach gifted students as who they are. There is no immediate focus on trying to improve academic performance but instead the teacher's reported quest to solve a mystery. Respondents reported that gifted students are:

> like a perpetual puzzle. They are made up of a million little jigsaw pieces and it is fascinating to see the "big picture" emerge. However, they are perpetual because their puzzle seems to be always changing (in a positive way) and they surprise you with putting together that which you did not expect but is awesome nonetheless.

One respondent used the metaphor, "a Salvador Dali painting," because at the surface these paintings appear to be easy to understand, but upon closer examination, "there are hidden images—images with deep personal meaning to the artist that can only be understood by knowing about Dali's history and influences." The "puzzle" metaphor also was often (*n* = 12) reported for two differing reasons:

1. The mysterious and often precarious combination between the gifted students and trying to fit in with peers.
2. The equally mysterious striving "to find a program that is just the right fit."

Effect on Teaching

Teachers report that their classroom practices are focused on the element of space: "allowing space," "creating space," and "mak[ing] a safe space." Participants described the function of this space for students by using metaphors such as "take bigger risks," "take away different meanings," "harness existing strengths," and "take interests further." These teachers seem to be creating space to facilitate student development in order to allow the incubation of a precious mystery: the authentic realization of these students and their "treasure troves."

Theme: Existing Potential (*N* = 17)

"The students have the potential to produce the best-sounding music because the instrument, or brain, is of very high quality."

Description of the Metaphor

This theme can be characterized by metaphors that are objects rife with latent possibilities. These objects have not

yet been fully potentiated and are waiting for a master craftsman. Objects in these metaphors were "a balloon," "caged owl," "a stem cell," "a well-tuned, expertly crafted instrument," "a kite," "a lightbulb looking for a live circuit," "an uncut diamond," and "an open can of paint." For example, a "caged owl" was described as "oftentimes not given the chance to explore their natural potential and ability"; in addition, "a stem cell has potential to become many things." However, this latent potential, seen by teachers in gifted students, is viewed as highly susceptible to abuse in its potentiation. Participants reported that their students' giftedness is "susceptible to being deflated by people who do not understand them or by unforeseen circumstances, which disrupt their course" and "vulnerable to abuses from forces oblivious to their capacities."

Effect on Teaching

Teaching here focuses on high-stakes curricula in order for gifted students to be more effective in life, with an emphasis on contributing to a social good. Though academic outcomes remain present in teaching, one respondent states that it "is important for them to see the connections between the content and its application to real life." Others say that becoming "productive citizens" and to "understand the hidden rules of how to adapt to the demands of society" form the teaching focus in this theme. As for the formal academic outcomes, teachers in this theme focus on the gifted child's existing potential: "Limits are not placed on student's for 'appropriate levels of knowledge' or 'grade standards' just follow what had made you curious until sated, pick up a tangent and keep going."

Theme: Unpredictability (*N* = 9)

"A piñata is full of a lot of good surprises."

Description of the Metaphor

This theme can be characterized by metaphors that contain an element of surprise combined with a sense of fluctuation. Surprise in these metaphors is more a reflection of teachers' wonderment about their gifted students and their own pleasure in discovering their gifts. This pleasure was reported as "the rewards that solving a conundrum provides," and "you can see the outside of the package, but the inside changes on a daily basis and can be a continual surprise." Examples of the metaphors used in this theme were "a present you can open every day," "a box of chocolates," "the weather," "a roller-coaster," and "a piñata bursting." The unpredictable element of gifted students is illustrated by respondents reporting that "you never know what you are going to get," and "you never know what is going to happen." One teacher, when explaining her weather metaphor, noted: "Gifted students can be glorious, can be terrifying, can change suddenly, and are sometimes predictable. Gifted students are something we need to think about each day."

Effect on Teaching

Teaching in this theme is centered on anticipation and planning combined with a strong sense of reflection "in" and "on" action. However, this emphasis seems contradictory to this theme's nature: unpredictability. How could teachers plan for this? This paradox seems to be bridged by teachers' pedagogical acumen in on-the-spot differentiation. Metaphors used in explaining how these teachers reported their own teaching were "be ready to switch gears," and "be ready to expand on the information." One teacher summed it up best:

> Teaching gifted students is, to me, a challenge in differentiation at its most nuanced level. A teacher of gifted students cannot assume anything; s/he must be willing to pretest, to ask, to listen, and then to act on what s/he learns about each individual student. S/he must adjust content, process, product, pace, intensity, feedback, collaboration, and all other areas of fine teaching. S/he must be open, honest, humble, willing to be taught by his/her students, and be willing to grow and learn with them, and from them. Finally, gifted students are often so complex—intellectually, socially, and emotionally, that they provide the conundrums that fuel constant reflection as one teaches them and learns from them. I thrive on these puzzling students. They make me play my "A" game every single day!

Theme: Precarious (*N* = 7)

"Too many individuals not familiar with champagne perceive it at the ultimate alcohol of the privileged—expensive, pretty, and 'perfect' for the most exquisite occasions."

Description of the Metaphor

Teachers in this theme focus on the perceived fragility and vulnerability of gifted students. There is a sense of acknowledgment of the perceived weakness and stresses of being gifted. In this theme, gifted students were described as "a fragile antique," "a box of mixed-up pieces from a few different puzzles," and "a horse and rider." These metaphors were employed due to the fact that with gifted students "care needs to be taken," due to an "imbalance between emotional and cognitive puzzle pieces," and they are "misunderstood and at-risk, but amazing as long as you understand him/her." There is the recognition of the "giftedness" in these students, but this is coupled with an overwhelming sense that, if not placed in the right circumstances, these students will not be seen or appreciated for who they are. For example, one teacher used the metaphor "a champagne—wonderfully complex, yet must be handled with care!" This was due to the special knowledge that one

needs to possess in being able to correctly distinguish among and appreciate various champagnes and their proper use. In other words, teachers need to possess a certain familiarity with gifted students to be able to best meet their needs. Raising this concern through the employment of this metaphor might be an indication that these teachers might be apprehensive about their colleagues' abilities to deal with the precariousness of gifted students.

Effect on Teaching

Teachers employing this metaphor appear to operate from a point of acknowledgment of perceived inherent challenges, weaknesses, or deficiencies of gifted students. However, this acknowledgment seems to go beyond the point of "understanding" these issues. This culminates in a point of acceptance of these perceived challenges, weaknesses, or deficiencies and teachers begin to nurture from a point of weakness. For example, a teacher reports that she tries "to help them turn their weaknesses into strengths." Another teacher reported on the importance of gifted students learning about other gifted students so they realize that "they're not alone! But … they are still their own unique mix of human traits." Another teacher remarked that it is first important that her gifted students "realize I understand their issues" and "support their individual strengths and weaknesses—encouraging them to recognize that not everyone is strong in all areas and to appreciate and utilize their own strengths."

Theme: Overcapacity (*N* = 7)

"Because you have to work (push the gas pedal) to make it go, and it may have some problems, but it still has a very strong engine that is capable of making the car go very far, very fast. This is like a gifted student's brain."

Description of the Metaphor

Metaphors reported here contain objects with an overwhelming disparity in terms of capacity. For example, a "Volkswagen Beetle outfitted with a jet engine," "an octopus in a fish aquarium," or a famous American football player playing against little kids." This overcapacity is characterized by all respondents in this theme as "asynchronous" development either in terms of personal asynchronous development ("a jet engine works faster than the body it is in") or asynchronous to peers ("They get frustrated when dealing with other students who don't share these gifts. And yet we still force them to play on the Pee Wee team when they could be performing at a much higher level"). However, the main focus of this theme is the tension between these overcapacities and the curricular challenges for teachers. One respondent explains:

> Often I've been told the gifted student just needs to wait for the others to "catch up" or that they don't need attention because they've met that standard or bar. But we don't expect athletes who have made the minimum bar to stop practicing! We give them more challenging things to do in order to help them refine and take their skills to the next level.

Effect on Teaching

Teachers in this theme have a sense of creating the "optimal" mix for their gifted students. Examples of this mix can be seen in respondents' answers such as "provide the fuel," "right mix of jet fuel," and "tailor my teaching." This mix seems to have as its intended outcome both academic and social goals. One respondent notes that their role is one of being a coach developing the athlete in terms of learning "how to goal-set and students learning to critically evaluate themselves and learn to use that information to help us improve learning." Respondents do, however, indicate that this is an "exhausting" endeavor because "every engine may need a different fuel combination."

Theme: Resource (*N* = 4)

"These students help to take the class to the next level by asking higher-order thinking questions and inciting discussion."

Description of the Metaphor

In this theme, respondents emphasized two subthemes:

1. The potential for gifted students to help both the teacher and the class.
2. The role that gifted students can play in helping "teachers to be on their toes."

Examples for the first subtheme are "a treasure to be used, not hidden" and "a valuable resource for both teachers and fellow students." Gifted students can be "resources to help other students. You can push them to improve themselves and their knowledge within your class." As for the role of gifted students in keeping teachers sharp, teachers reported that they become excited when they hear that they have a gifted student in their class, because this opens up possibilities for the teacher in terms of what can be offered in that class. In other words, the presence of a gifted student in class creates the feeling in these respondents that a teacher has to, or can, offer different curricular possibilities. Additionally, gifted students can challenge teachers' beliefs "by asking higher-order thinking questions and inciting discussion" and thus breaking down some of the false beliefs that teachers may hold about gifted students.

Effect on Teaching

Teachers in this theme are conscious of the academic differences and attempt to use the work as well as the students themselves as "exemplars" in the classroom. There is a clear acknowledgement by participants of the curricular utilization of gifted students as means to enhance their own classroom for the betterment of the nongifted students. For example, if the goal of a classroom discussion is to critically evaluate a concept and that is not being achieved, teachers can call on a gifted student to help achieve that goal by "asking higher-order thinking questions and inciting discussion." Though this might be beneficial for a classroom discussion, too much reliance on gifted students to assist the teacher might have negative consequences in relation to the individual development of gifted students.

Equally, the higher alertness that these teachers report due to having gifted students in their class who potentially challenge their beliefs actually creates a learning moment for teachers. However, this can also lead to frustration or feelings of inadequacy that might, once again, have negative consequences in relation to the individual development of gifted students.

CONCLUSION

Metaphors are devices people employ for both poetic purposes and rhetorical elaboration. Additionally, metaphors are employed to connect abstract ideas and information to more concrete experiences (Lakoff & Johnson, 2003). However, metaphors are more than symbolic intellectual processes; they influence the conceptual understanding of our experiences. Employing metaphors to explain specific phenomena can reduce the complexity of those phenomena and make them more familiar and easier to understand (Meier et al., 2014).

Specifically for education, there is an important and relevant practical connection among the metaphors that teachers employ and their beliefs about teaching and classroom practices. Classroom practices such as differentiation need to be based on the individual student's level of readiness, interests, and learning preferences (Tomlinson, 1999) and not specifically influenced by teachers' personal metaphors.

In order to gain a deeper understanding of the metaphors that teachers in gifted education hold and use, this study specifically asked teachers to describe both their metaphors concerning gifted students and the influences of these metaphors on their teaching. In this study, nine different themes were identified. Because participants were also asked to explain how their metaphor effected their teaching, each of the nine themes also presents an insight into teachers' practices through the lens of their metaphors. There is a clear connection between reported metaphors and how gifted students receive their education from teachers. Participants' answers demonstrate a strong connection between their metaphors and their classroom practices. Though this has been previously reported in regard to general classroom practices, the literature has not specifically focused on this connection in gifted education regarding the potential effects of teachers' metaphors for gifted students on their classroom practices for gifted students.

Simplification Through Metaphor

Metaphors are employed to assist people with connecting ideas. Abstract ideas can be more easily understood by connecting them to concrete experiences (Meier et al., 2014). However, this movement from abstract to concrete actually simplifies reality. This results in loss of subtlety and nuance found in reality. In other words, reality loses its nuance through the employment of metaphors. For example, when describing a gifted student as a "race car," a teacher might lose sight of the "child" who is actually driving that car due to the teacher's focus on speed, performance, and desire to continually challenge that student with appropriate curricular instruction. Equally, teachers who attempt to peel back all of the layers (metaphor: "an onion") in their gifted students might fail to stop and examine those layers and possible reasons for those layers. The simplification of layers and needed layers to explore could miss the significance of individual layers contained in the student as well as the possibility that the student might not want to reveal those layers.

Discontinuity Through Metaphor

Differences in terms of the individual student's level of readiness, interests, and learning preferences (Tomlinson, 1999), which should drive the classroom differentiation process, are simplified when teachers' practices and thoughts are confined by a root metaphor (Ambrose & Sternberg, 2012). By failing to utilize the diversity contained in other root metaphors of giftedness, the chance increases for dogmatism in the classroom. This dogmatism has two discontinuous aspects: a potential incoherence between what the motivating factor is in classroom differentiation and a potential disconnect between classroom practices and the actual pedagogical needs of the gifted learner.

Discontinuity in the Motivating Factor

Ambrose and Sternberg (2012) state that root metaphors shape individuals' epistemological, methodological, and ideological assumptions about the world. Framing classroom practices through the lens of one's own root metaphor leads to a projection of one's ideas onto reality. In other words, if a teacher views gifted students as a "pearl hidden in an oyster shell," the teacher will be focusing on breaking

the shell open and discovering that pearl. Equally, if the root metaphor is "a puzzle," then the effort and energy of the teacher will be focused on putting that puzzle together, thus focusing on the larger final result: a completed gifted student. The teacher then operates out of that worldview, but in essence this worldview only contains that teacher's assumptions. It lacks any formal grounding to the student. Therefore, the motivating factor is the teacher's root metaphor and not students' readiness, interests, and learning preferences. This notion is akin to Maslow's (1966) "hammer": if you only have a hammer, you will treat everything as a nail. Moreover, the teacher's individual motivation and curiosity to solve the puzzle, find the pearl, or discover the correct mix of jet fuel becomes the motivating force in classroom differentiation.

Discontinuity in Pedagogical Needs

The utilization and reliance on one's root metaphor raises a potential discontinuity between teachers' personal mental frameworks, as partially expressed in their reported metaphors, and gifted students' actual pedagogic needs. A teacher's "race car" (performance theme) metaphor and subsequent actions framed from that metaphor might not be the most effective for gifted students desiring "depth," "complexity," "intellectual variation," "behavior," "things below the surface," and "personal interests" (multilayered theme). Equally, gifted students desiring "looking for an avenue," "go all-in," and "rails wide open" (performance theme) might struggle in the classroom if a teacher holds a "mystery" theme metaphor built around "allowing space," "creating space," and "make a safe space." Moreover, and equally unclear, is whether the subsequent classroom differentiation based on "making a safe space," "go[ing] all-in," and finding "the pearl hidden in an oyster shell" best serves the pedagogical needs of those specific individual gifted learners or fulfills the root metaphor held by the teacher.

Implications for Practice

Ambrose (1998) asserts that in order to strengthen the understanding of a complex body of knowledge, such as teaching, a strong combination of diverse viewpoints on knowledge needs to be simultaneously active within that discipline. The chance to decrease dogmatism as well as a discontinuity in the motivating factor and pedagogical needs is first engaging in the discovery of one's root metaphor concerning giftedness and, secondly, the active participation by teachers to seek out practitioners in order to complement one's root metaphor. Combining diverse worldviews will lead to a reduction of thought confinement (Ambrose & Sternberg, 2012) and thus will enrich the educational practices for gifted students.

Limitations of the Current Study and Future Research

This study is limited in the sense that it relies on self-reported teacher practices. Future research could be strengthened by classroom observations. These observations could also attempt to capture the actual pedagogical needs of the students, thus allowing for a comparison of the classroom differentiation to the students' needs. Additionally, the sample of teachers is small in comparison with the full population of teachers serving gifted learners. It must also be noted that similar to the manner in which metaphors reduce reality, the research process (categorization, etc.) plays a role in the reduction of reality. Therefore, a strong acknowledgment must be made of the fact that teachers' root metaphors and their relationship to actual classroom practices are much more psychologically complex than what can be captured in any coding scheme.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the author.

ORCID

Brian P. Godor http://orcid.org/0000-0003-3070-3404

REFERENCES

Ambrose, D. (1998). Comprehensiveness of conceptual foundations for gifted education: A world-view analysis. *Journal for the Education of the Gifted*, *21*, 452–470. doi:10.1177/016235329802100406

Ambrose, D. (2000). World-view entrapment: Moral-ethical implications for gifted education. *Journal for the Education of the Gifted*, *23*, 159–186. doi:10.4219/jeg-2000-570

Ambrose, D., & Sternberg, R. J. (Eds.). (2012). *How dogmatic beliefs harm creativity and higher-level thinking*. New York, NY: Routledge.

Aristotle. (1932/1982). *Poetics*. (W. Hamilton Fyfe, Trans.). Cambridge, MA: Harvard University Press.

Assor, A., Kaplan, H., & Roth, G. (2002). Choice is good, but relevance is excellent: Autonomy-enhancing and suppressing teacher behaviours predicting students' engagement in schoolwork. *British Journal of Educational Psychology*, *72*, 261–278. doi:10.1348/000709902158883

Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, *40*, 518–529.

Berman, K. M., Schultz, R. A., & Weber, C. L. (2012). A lack of awareness and emphasis in preservice teacher training: Preconceived beliefs about the gifted and talented. *Gifted Child Today*, *35*(1), 18–26. doi:10.1177/1076217511428307

Brighton, C., Hertberg, H., Callahan, C., Tomlinson, C., & Moon, T. (2005). *The feasibility of high end learning in academically diverse middle schools* (Report No. RM 05210). Storrs, CT: University of Connecticut, National Research Center on the Gifted and Talented.

De Neve, D., Devos, G., & Tuytens, M. (2015). The importance of job resources and self-efficacy for beginning teachers' professional learning in differentiated instruction. *Teaching and Teacher Education*, *47*, 30–41. doi:10.1016/j.tate.2014.12.003

Eren, A., & Tekinarslan, E. (2013). Prospective teachers' metaphors: Teacher, teaching, learning, instructional material and evaluation concepts. *International Journal of Social Sciences and Education*, *3*, 435–445.

Gibbs, R. W. (2014). Conceptual metaphor in thought and social action. In M. Landau, M. D. Robinson, & B. P. Meier (Eds.), *The power of metaphor: Examining its influence on social life* (pp. 17–40). Washington, DC: American Psychological Association. Retrieved from http://content.apa.org/books/14278-002

Hertberg-Davis, H. (2009). Myth 7: Differentiation in the regular classroom is equivalent to gifted programs and is sufficient: Classroom teachers have the time, the skill, and the will to differentiate adequately. *Gifted Child Quarterly*, *53*, 251–253. doi:10.1177/0016986209346927

Koca, S. (2012). The primary school teacher candidates' metaphorical thinking about the concept of music. *Procedia—Social and Behavioral Sciences*, *47*, 807–811. doi:10.1016/j.sbspro.2012.06.739

Lakoff, G., & Johnson, M. (2003). *Metaphors we live by* (2nd ed.). Chicago, IL: University of Chicago Press.

Maslow, A. H. (1966). *Psychology of science* (1st ed.). New York, NY: Harper & Row.

Meier, B. P., Scholer, A. A., & Fincher-Kiefer, R. (2014). Conceptual metaphor theory and person perception. In M. Landau, M. D. Robinson, & B. P. Meier (Eds.), *The power of metaphor: Examining its influence on social life* (pp. 43–64). Washington, DC: American Psychological Association. Retrieved from http://content.apa.org/books/14278-003

Missett, T. C., Brunner, M. M., Callahan, C. M., Moon, T. R., & Azano, A. P. (2014). Exploring teacher beliefs and use of acceleration, ability grouping, and formative assessment. *Journal for the Education of the Gifted*, *37*, 245–268. doi:10.1177/0162353214541326

Munby, H., & Russell, T. (1990). Metaphor in the study of teachers' professional knowledge. *Theory into Practice*, *29*, 116–121. doi:10.1080/00405849009543441

Musolff, A., & Zinken, J. (Eds.). (2009). *Metaphor and discourse*. Basingstoke, England: Palgrave Macmillan. Retrieved from http://www.palgraveconnect.com/doifinder/10.1057/9780230594647

Nichols, J. D., & Zhang, G. (2011). Classroom environments and student empowerment: An analysis of elementary and secondary teacher beliefs. *Learning Environments Research*, *14*, 229–239. doi:10.1007/s10984-011-9091-1

Olthouse, J. (2014). How do preservice teachers conceptualize giftedness? A metaphor analysis. *Roeper review*, *36*, 122–132. doi:10.1080/02783193.2014.884200

Parks, A. N. (2010). Metaphors of hierarchy in mathematics education discourse: The narrow path. *Journal of Curriculum Studies*, *42*, 79–97. doi:10.1080/00220270903167743

Reis, S. M., & Renzulli, J. (2009). The schoolwide enrichment model: A focus on student strengths and interests. *Gifted Education International*, *26*, 140–157.

Ryan, G. W., & Bernard, H. R. (2003). Techniques to identify themes. *Field Methods*, *15*(1), 85. doi:10.1177/1525822X02239569

Shaw, D. M., & Mahlios, M. (2008). Pre-service teachers' metaphors of teaching and literacy. *Reading Psychology*, *29*(1), 31–60. doi:10.1080/02702710701568397

Smit, R., & Humpert, W. (2012). Differentiated instruction in small schools. *Teaching and Teacher Education*, *28*, 1152–1162. doi:10.1016/j.tate.2012.07.003

Tinto, V. (1988). Stages of student departure: Reflections on the longitudinal character of student leaving. *Journal of Higher Education*, *59*, 438–455. doi:10.2307/1981920

Tobin, K. (1990). Changing metaphors and beliefs: A master switch for teaching? *Theory into Practice*, *29*, 122–127.

Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Washington, DC: Association for Supervision and Curriculum Development.

Tomlinson, C. A., Brighton, C., Hertberg, H., Callahan, C. M., Moon, T. R., Brimijoin, K., … Reynolds, T. (2003). Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of literature. *Journal for the Education of the Gifted*, *27*, 119–145.

AUTHOR BIO

Brian P. Godor is an Assistant Professor in Educational Sciences at Erasmus University Rotterdam, The Netherlands. His teaching emphasizes learning theories, teacher competencies, and assessment. His research focuses on teacher competencies and gifted education as well as the psychosocial development of gifted students. E-mail: godor@essb.eur.nl